AMENDMENTS TO THE ABSTRACT:

~~The present invention relates to~~ A silicon dual inertial sensor ~~sensors~~ made of a (110) silicon ~~chip. The invention~~ chip comprises at least [[an]] a proof-mass, which is connected to [[an]] a corresponding inner frame with a plurality of sensing resilient beams to make it easier for [[said]] the proof-mass to move perpendicular to the surface of [[said]] the silicon chip (defined as z-axis), and each inner frame is connected to [[the]] an outer frame with a plurality of driving resilient beams, or connected to [[the]] common connection ~~beam~~ beams, which [[is]] are then connected to a central anchor with [[the]] common resilient supporting beams ~~beam~~ to make it easier for [[said]] the inner frame to move in parallel with the surface of [[said]] the silicon chip (defined as y-axis). Each inner frame is driven by a driver to move in an opposite direction along the y-axis, and also move the proof-mass in the opposite direction along the ~~y-axis, if~~ y-axis. If there is a rotation rate input along the x-axis, it will generate ~~generates~~ a Coriolis force to make each [[said]] proof-mass [[to]] move in the opposite direction of the ~~z-axis; if~~ z-axis. If an acceleration is input along the z-axis, the specific force will move the [[said]] proof-masses with the same ~~direction; when said~~ ~~proof-mass~~ direction. When the proof-masses move or oscillate, the capacitance of the capacitor formed with sensing electrodes will change due to the change ~~of distance; hence the~~ of the distance. The moving distance can be obtained by measuring the change of ~~capacitance; as~~ the capacitance. Because the rotation rate outputs an alternating signal, and the acceleration outputs a direct signal, they can be separated with signal processing. The ~~present invention utilizes the~~ deep vertical etching characteristics of the (110) silicon chip is utilized to make the driving

beam in order to control <u>the</u> driving resonance frequency more precisely, and <u>improve</u> ~~improves~~ the yield rate and the performance of the gyroscope.